PORSP 11.3.234.1 v.4
8/19/2008

CONOCOPHILLIPS COMPANY ("CONOCOPHILLIPS"),
ON BEHALF OF PHILLIPS PETROLEUM COMPANY,
TOSCO CORPORATION AND ASSETS OF 76 PRODUCTS COMPANY

RESPONSES TO JANUARY 18, 2008
EPA FIRST REQUEST FOR INFORMATION
PORTLAND HARBOR SUPERFUND SITE
PORTLAND, OREGON

WASTEWATER DISCHARGE PERMIT APPLICATION

RESPONSE TO QUESTION 43

CITY OF PORTLAND
ENVIRONMENTAL SERVICES
Water Pollution Control Laboratory
6543 N. Burlington Avenue, Bldg. 217, Portland, Oregon 97203 • Sam Adams, Commissioner • Dean Marriott, Director

WASTEWATER DISCHARGE PERMIT

ISSUED TO:	ConocoPhillips-Chevron Remediation, Willbridge Terminal
SIC CODE:	2992, 5171
PLANT TYPE:	Groundwater Remediation Site
EPA CATEGORY:	Non-Categorical
LOCATION:	5528 NW Doane Ave. Portland, Oregon 97210
MAILING ADDRESS:	Delta Environmental 7150 SW Hampton Suite 220 Tigard, Oregon 97223
RESPONSIBLE OFFICIAL:	Myron W. Smith
PHONE NUMBER:	(602) 728-6986
FAX NUMBER:	(602) 728-5032

EXPIRATION DATE: 8/15/2012

INDUSTRIAL SOURCE CONTROL MANAGER: Gerald W. Baumgartner — Effective Date: 10-2-07

PREPARED BY: EDB
CHECKED BY : MAS

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INTRODUCTION

PERMITTED ACTIVITIES

The permittee is authorized to discharge industrial wastewater to the City of Portland's sewer system in compliance with Chapter 17.34 of the City Code, the Bureau of Environmental Services Administrative Rules and any applicable provisions of federal or state laws or regulations and in accordance with discharge point(s), effluent limitations, monitoring requirements, and all other conditions set forth herein.

It is the permittee's duty to comply with all conditions of this permit. Any noncompliance with permit requirements constitutes a violation of Chapter 17.34 of Portland's City Code and, as such, subjects the permittee to enforcement action(s).

Schedule A
WASTEWATER DISCHARGE LIMITATIONS

Listed below are the waste discharge limitations not to be exceeded after **the permit effective date.** Applicable regulations include Chapters 17.34 (Schedule F of this permit lists the General Discharge Prohibitions) and 17.36 of the Code of the City of Portland and 40 CFR 403. The point of compliance with the discharge limitations shall be 1A.

POC (*)	Pollutant Name	Local Limit Daily Max (mg/L)	Categorical Limit (mg/L mg/L, lb / day lb) Daily	Monthly
	METALS			
	Arsenic	0.2		
	Cadmium	0.7	See Schedule D	
	Chromium	5.0	See Schedule D	
	Copper	3.7	See Schedule D	
	Lead	0.7	See Schedule D	
	Mercury	0.010	See Schedule D	
	Molybdenum	1.4		
	Nickel	2.8	See Schedule D	
	Selenium	0.6		
	Silver	0.4	See Schedule D	
	Zinc	3.7	See Schedule D	
	NON-METALS (INORGANICS)			
	Cyanide	1.2		
*	**pH**	**5.0-11.5 su**		
	Sulfide	4.0		
	NON-METALS (ORGANICS)			
	1,2-Dichloroethane	0.50		
	2,4-Dinitrotoluene	0.13		
	Acrylonitrile	1.00		
	Chlordane	0.03		
	Chlorobenzene	0.20		
	Chloroform	0.20		
	Nitrobenzene	2.00		
	Pentachlorophenol	0.04		
	Trichloroethylene	0.20		
*	**Non-polar Oil & Grease**	**110**		
*	**BTEX (Total)**	**see note 4**		

Notes:

1. This schedule may be revised upon written notification by the City to accommodate process changes by the permittee or as determined by the Director of Environmental Services.

2. In addition to the limits stated in Schedule A, the permittee shall comply with all other applicable City, State and Federal regulations.

3. The pollutant parameters marked with an asterisk (*) are the pollutants of concern. At a minimum, the permittee is required to monitor for pollutants of concern. All limits are applicable at the point of compliance.

4. This is a benchmark concentration developed and implemented in accordance with City Code 17.34.040(c), and the Director of the Bureau of Environmental Services. (See Schedule D)

5. The City has Pollutant Prohibitions for certain individual organic compounds that are not amenable to biological treatment or that have a screening value or local limit that is less than the practical method detection level (MDL). Discharges containing concentrations of a prohibited pollutant above the MDL, as listed in Appendix 5, is a violation of City Code and this permit.

Schedule B
MONITORING AND
REPORTING REQUIREMENTS

I. Periodic Compliance Self-Monitoring:

Parameter	Sample Type	First Quarter			Second Quarter			Third Quarter			Fourth Quarter		
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec
Non Metals													
pH		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Oil and Grease (total)		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
BTEX (Total)		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Due Dates		Feb 15	Mar 15	Apr 15	May 15	Jun 15	Jul 15	Aug 15	Sept 15	Oct 15	Nov 15	Dec 15	Jan 15

I. Periodic Compliance Self-Monitoring Report, Notes:

1. Periodic Compliance Reports are to be submitted to the Industrial Source Control Division by the 15th of the month following the conclusion of the reporting period. Sampling, analysis, and reporting will follow the schedule above.

2. All official sampling shall be taken at the approved sampling location. (See Appendix 2: sampling location map.)

3. The permittee shall analyze samples for all listed parameters plus any other which might be expected to be present in significant quantities.

4. The permittee shall submit all self-monitoring results to the Industrial Source Control Division as part of their monitoring and reporting requirements.

5. All monitoring results are to be mailed to:

   Industrial Source Control Division
   Bureau of Environmental Services
   City of Portland
   6543 N. Burlington Ave.
   Portland, OR 97203

6. Periodic Compliance Reports are to be submitted by the 15th of each month following the report *period for each sampling location. The reports shall consist of:*

   a. Statement of compliance/noncompliance, signed by the officially designated contact person (statement is found on bottom of the self-monitoring report form).

Schedule B
MONITORING AND
REPORTING REQUIREMENTS

II. **Periodic Compliance Self-Monitoring Report** (Notes continued):

b. Sample analysis results recorded on the appropriate self-monitoring report form and chain of custody for sample collected.

c. Originals of all laboratory analysis sheets showing who analyzed sample, date and time sample was analyzed, analytical methods used, method detection limit, test result, and quality assurance/quality control.

d. Copies of pH charts (if any) showing violations (if any).

e. Any other reports that may be required.

f. Calculations of monthly average, if appropriate.

7. The permittee should instruct its laboratory that, if the oil and grease (total) concentration exceeds 110 mg/L, the laboratory should determine the concentrations of the polar and non-polar oil and grease fractions.

8. The City may reduce or increase the frequency of sampling, based on the analytical results submitted.

9. As per 40 CFR 403.12(g)(5), if an industrial user subject to the reporting requirements of Schedule B monitors any parameter from the official sampling location more frequently than required, using procedures specified in Schedule E14(c), the results of their monitoring must be submitted in the required report.

Schedule C
COMPLIANCE SCHEDULE

Schedule D
SPECIAL CONDITIONS

As per 17.34.040 (c), the Director of Environmental Services may limit the characteristics or volume of the ground water discharged to the City sewer system if the discharge from ConocoPhillips-Chevron., damages the sewer system, causes interference with the operations of the City sewer system, endangers human health, or causes degradation to receiving waters.

In addition to the standard industrial wastewater discharge limitations listed in Schedule A, ConocoPhillips-Chevron., is required to meet the Pollutant Levels of Concern (PLOC). The PLOC are listed below. In the event treated groundwater from Tosco-Chevron., contains a parameter with a concentration above the PLOC, discharge will stop immediately. In the event self monitoring analysis indicated a violation of the PLOC has occurred, ConocoPhillips-Chevron, shall notify the City within 24 hours of becoming aware of the analysis results.

Pollutant	PLOC Concentration mg/L
Cadmium (total)	0.06
Chromium (total)	0.34
Copper (total)	0.23
Lead (total)	0.10
Mercury (total)	0.0013
Nickel (total)	0.25
Silver (total)	0.036
Zinc (total)	0.47
Benzene (total)	0.05
BTEX (total)	0.75
Non-Polar Oil & Grease	10.0

A report detailing the cause of the excursion, the work done to rectify the problem, and results of the re-sampled effluent must be reviewed and found acceptable by the City before the discharge is allowed to continue.

Schedule E
GENERAL CONDITIONS

1. Accidental Spill Prevention Plan

To comply with Section 17.34.090 of the City Code, the permittee shall submit a new or revised Accidental Spill Prevention Plan (ASPP) to the Industrial Wastewater Management Section 90 days after the effective date of this permit. The plans shall include the following elements.

a. A description of the hazardous substances handled and their potential points of entry into the City sewer system or storm runoff

b. A description of the measures to be taken to prevent entry at the described points before a spill occurs

c. Measures to be taken to contain a spill if one occurs

d. A description of employee training in the prevention and control of spills

e. A posted notice informing employees of the requirement to notify the Bureau of Environmental Services in case of spills or uncontrolled discharges.

2. Appeal

Upon receipt of a final industrial wastewater discharge permit, a permittee may appeal any of its terms or conditions to the Code Hearings Officer in accordance with procedures set out at Chapter 22.10 of the Portland City Code; provided that such an appeal shall include a copy of the permit that is the subject of the appeal, shall state the basis for the appeal, and shall be filed with the Code Hearings Officer and the Bureau of Environmental Services.

3. Authorized Discharge

All discharge and activities authorized herein shall be consistent with the terms and conditions of this permit, Chapter 17.34 of the City Code and the Administrative rules. The discharge of any pollutant in excess of these limits shall constitute a violation of the terms and conditions of this permit.

4. Bypass or Diversion

The diversion or bypass (the intentional diversion of wastestreams from any portion of a permittee's treatment facility) of any discharge, from facilities used by the permittee, to maintain compliance with the terms and conditions of this permit is prohibited except:

a. When unavoidable to prevent loss of life or severe property damage.

b. When excessive storm drainage or runoff would damage facilities necessary for compliance with the terms and conditions of this permit.

4. **Bypass or Diversion (continued)**

The permittee shall immediately notify the City in writing of each such diversion or bypass, in accordance with the procedure specified in condition No. 23.

5. **Certification**

Legible copies of all applications, reports, and information submitted to the City shall be signed and certified as follows in accordance with 40 CFR 403.12.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

6. **Chemical Storage**

Chemicals shall be stored in a manner that will prevent the entry of these substances into the sanitary, combined sewer, or storm sewer system, or waters of the state.

7. **Continuous Compliance**

Compliance with Schedule E, No. 23 shall not relieve the permittee from responsibility to maintain continuous compliance with the conditions of this permit.

8. **Dilution Prohibition**

It is unlawful for a discharger to use dilution as a partial or complete substitute for adequate treatment to achieve compliance with the standards and limitations set forth in this permit. The Director may impose mass limitations on dischargers who are using dilution to meet the applicable pretreatment standards or the requirement set forth in this permit.

9. **Enforcement Provision**

A violation of any conditions, standards or requirements of this permit constitutes a violation of Chapter 17.34 of the City Code and any rules promulgated thereunder. Therefore, the City may seek any or all of the remedies or penalties provided for in Section 17.34.110 of the City Code, including recovery of costs incurred by the City, in response to the following:

a. Any violation by the permittee of the provisions in this Industrial Wastewater Discharge Permit.

b. Any violation by the permittee of the provisions of the City Code.

9. **Enforcement Provision (continued)**

c. Any violation by the permittee of an Enforcement Action requirement with respect to provisions set forth in this Industrial Wastewater Discharge Permit and the City Code and Administrative Rules.

The range or severity of enforcement actions taken by the City against the permittee will be determined by, but not limited to, the nature, magnitude, duration, and frequency of the violation as provided by City Code and Administrative Rules.

10. **Extra-Strength Sewer Charge (ESSC)**

Discharges exceeding 300 mg/L for the 5-day biochemical oxygen demand (BOD) or 350 mg/L total suspended solids (TSS) concentrations (as defined in Section 17.36.060(1) of the City Code) shall be subject to the extra-strength sewer charge (ESSC) established in Section 17.36.060(1).

11. **Hazardous Waste Notification**

The industrial user shall notify the Industrial Source Control Division Section, the POTW, the EPA Regional Waste Management Division Director, and State hazardous waste authorities in writing of any discharge into the POTW of a substance, which, if otherwise disposed of, would be a hazardous waste under 40 CFR Part 261. Such notification must include the name of the hazardous waste as set forth in 40 CFR Part 261, the EPA hazardous waste number, and the type of discharge (continuous, batch, or other). If the industrial user discharges more than 100 kilograms of such waste per calendar month to the POTW, the notification shall also contain the following information to the extent such information is known and readily available to the industrial user: an identification of the hazardous constituents contained in the wastes, an estimation of the mass and concentration of such constituents in the wastestream discharged during that calendar month, and an estimation of the mass of constituents in the wastestream expected to be discharged during the following 12 months.

12. **Inspection and Entry**

The permittee shall, at all reasonable times, allow authorized representatives of the City:

a. To enter the permittee's premises where an effluent source or disposal system is located or where any records associated with this permit are kept.

b. To have access to any required records and permission to copy these records. At no time can wastewater effluent data be claimed or held as confidential information.

c. To inspect and evaluate any monitoring equipment or monitoring methods required by this permit.

d. To sample any discharge to the sewer system.

13. **Liability**

The City of Portland, its officers, agents or employees shall not sustain any liability due to the issuance of this permit or the construction or maintenance of facilities resulting from this permit.

14. **Monitoring**

a. The permittee shall record the following information:

* The exact date, time, and place of sampling
* Name of person who collected the sample(s)
* Type of sample(s) collected
* The dates analyses were performed
* Who performed the analyses
* The analytical techniques or methods used
* The results of all required analyses
* Whether quality assurance and quality control laboratory procedures are followed

b. Samples and measurements, taken to meet the requirements of the above condition, shall be representative of the effluent. Grab samples must be collected for pH, cyanide, phenol, sulfide, volatile organic compounds and oil and grease monitoring.

c. All sampling and analytical methods used to meet the monitoring requirements specified in this permit shall, unless otherwise approved in writing by the City, conform to the Guidelines Establishing Test Procedures for the Analysis of Pollutants as specified in 40 CFR, Part 136. Laboratory quality assurance and quality control programs should be documented. EPA QA/QC programs should be followed.

d. The permittee is required to document proper installation, and maintenance of flow monitoring and sampling equipment.

e. If the results of the permittee's wastewater analysis indicate that a noncompliance has occurred, the permittee must notify the City's Industrial Source Control Division Section within 24 hours of becoming aware of the noncompliance. The permittee must also repeat the sampling within 24 hours of the effluent noncompliance or next process day and submit the analysis to the City within 30 days after becoming aware of the noncompliance.

f. The permittee shall take all reasonable steps to minimize or correct any adverse impact to the POTW or the environment resulting from noncompliance with this permit, including such accelerated or additional monitoring as necessary to determine the nature and impact of the non-complying discharge.

14. Monitoring (continued)

g. If requested, the permittee shall provide or split discharge samples with the City of Portland Water Pollution Control Laboratory.

15. Permit Modification

This permit may be modified with 30 days prior written notification, in whole or in part, for causes including but not limited to the following:

a. A change in the City's NPDES permit or any other condition that requires either a temporary or permanent elimination of any authorized discharge.

b. To incorporate new or revised federal, state, or local pretreatment standards or requirements.

c. Information indicating that the permitted discharge poses a threat to the City's collection and treatment system, POTW personnel, or the receiving waters and sludge.

d. To correct typographical or other errors in the permit.

e. Any significant change in the volume of a permitted discharge.

16. Permit Renewal

This permit is issued to a specific entity and cannot be transferred by the industrial user and must be renewed pursuant to Section 17.34.070 of the Code of the City of Portland and Permit Applications must be received 90 days prior to:

a. Expiration date of current permit.

b. In the event the permittee plans to cease operations at the present location, and plans to relocate within the City of Portland's jurisdiction and continue the same permitted activities.

c. The permitted industrial process being significantly altered or changed so that pollutants not specifically mentioned in the current permit are present in the permittee's discharge.

17. Permit Suspension or Termination

a. Violation of any terms or conditions of this permit or any applicable rule, standard, or order of the director of the Bureau of Environmental Services.

b. Obtaining this permit by misrepresentation or failure to fully disclose all relevant facts.

c. Falsifying self-monitoring reports.

d. Tampering with monitoring equipment.

17. **Permit Suspension or Termination (continued)**

e. Refusing to allow prompt access to the facility premises and records.

f. Failure to meet effluent limitations.

g. Failure to pay fines.

h. Failure to meet compliance schedules.

18. **Plant Closure**

In the event the permittee plans to cease operations at the present business location, and not to relocate within the City of Portland's jurisdiction, the permittee shall inform this office, in writing, 60 days prior to plant closure.

19. **Property Rights or Privileges**

The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges; it does not authorize any injury to private property or any invasion of personal rights; and it does not authorize any infringements or federal, state, or local laws or regulations.

20. **Records Retention**

All records of monitoring activities and results, including all original strip chart recordings for continuous monitoring instrumentation (and calibration and maintenance records), shall be retained by the permittee for a minimum of three years. This retention period shall be extended during the course of any unresolved litigation pertaining to the discharge of pollutants by the permittee, or whenever it is requested by the City, the Approval Authority (DEQ), the Regional Administrator (EPA).

21. **Reporting Requirements**

a. Accidental or Slug Loading

If accidental or slug loading to the sanitary sewer occurs, the permittee shall notify the City Permit Manager immediately, if no response then call the City Duty Officer at 503-823-7180 (M-F 8:00am - 4:30pm) or 503-323-3398 (after 4:30pm and weekends). A formal written report, discussing circumstances and remedies, shall be submitted to the City within 5 days of the occurrence

b. Changes in Wastewater Characteristics

The permittee shall give notice to the Industrial Source Control Division Section 90 days before any facility expansion, production increase, or process modifications that result in new or substantially increased discharges or a change in the nature of the discharge.

c. Change in representative

21. Reporting Requirements (continued)

If the responsible corporate official changes, notify the City within 10 days, as per 40 CFR 403.12 (l) (4).

22. Severability

The provisions of this permit are severable, and if any provision of this permit or the application of any provision of this permit to any circumstance is held invalid, the application of such provision to the other circumstances and the remainder of this permit shall not be affected.

23. Slug Load Notification

If the permittee is unable to comply with all the conditions of this permit due to a breakdown of equipment or facilities, an accident caused by human error or negligence, or any other cause such as an act of nature, or should any condition cause the release of any slug load, the permittee shall:

a. Immediately take action to stop, contain, clean up the unauthorized discharges, and correct the problem.

b. Immediately call the City Permit Manager, if no response then call the City Duty Officer at 503-823-7180 (M-F 8:00am - 4:30pm) or 503-323-3398 (after 4:30pm and weekends).

c. Within five (5) days submit a detailed written initial report to the City Permit Manager describing the breakdown, the actual quantity of resultant waste discharges, the corrective action taken, the steps taken to prevent recurrence, and any other pertinent information.

d. Samples shall be taken immediately upon discovery of the Slug load. Within 15 days, a follow-up report shall be submitted. The report shall contain analysis of samples taken during such discharge and samples taken after normal conditions have been restored. The samples, at a minimum, shall be analyzed for the parameters required in Schedule B. Sampling shall be continued until all parameters are within discharge limits.

24. Upset

a. Definition:

For the purposes of this section, upset means an exceptional incident in which there is unintentional and temporary noncompliance with applicable pretreatment standards, because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.

b. Effect of an Upset:

An upset will constitute an affirmative defense to an action brought for noncompliance with applicable pretreatment standards, if the requirements of paragraph c are met.

24. Upset (continued)

c. Conditions Necessary for a Demonstration of an Upset:

A permittee who wishes to establish the affirmative defense of an upset shall demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:

(1) An upset occurred and the permittee can identify the specific cause(s) of the upset.

(2) The facility was, at the time, being operated prudently, efficiently, and in compliance with applicable operation and maintenance procedures.

(3) The permittee has submitted the following information to the Industrial Source Control Division within 24 hours of becoming aware of the upset (if this information is provided orally, a written submission must be provided within 5 days).

* A description of the indirect discharge and cause of noncompliance
* The period of noncompliance, including exact dates and times or, if not corrected, the anticipated duration of noncompliance
* Steps planned or now being taken to reduce, eliminate, and prevent recurrence of the noncompliance

d. Burden of Proof

In any enforcement proceeding, the permittee seeking to establish the occurrence of an upset shall have the burden of proof.

e. Permittee Responsibility in Case of an Upset.

If reduction, loss, or failure of its treatment facility occurs, the permittee shall control production of all discharges in order to maintain compliance with applicable pretreatment standards until the facility is restored or an alternative method of treatment is provided. This requirement especially applies if the primary source of the treatment facility power is reduced, lost, or failed.

Schedule F
GENERAL DISCHARGE PROHIBITIONS

The permittee shall not discharge, cause to discharge or allow to discharge directly or indirectly into the City sewer system any of the following:

1. Wastewater containing substances in such concentrations that they inhibit or interfere with the operation or performance of the sewer system, or that are not amenable to treatment or reduction by the sewage treatment process employed, or are only partially amenable to treatment such that the sewage treatment plant effluent cannot meet the requirements of any agency having jurisdiction over its discharge to the receiving waters, or that prevent or impair the use or disposal of sewage treatment plant sludge and sludge products in accordance with applicable State and federal regulations;

2. Any liquids, solids, or gases which by reason of their nature or quantity are, or may be, sufficient either alone or by interaction to cause fire or explosion or be injurious in any other way to the operation of the sewer system, or wastestreams with a closed cup flashpoint of less than 140 degrees Fahrenheit or 60 degrees Celsius (using test methods prescribed at 40 CFR 261.21), or discharges which cause the atmosphere in any portion of the sewer system to reach a concentration of 10% or more of the Lower Explosive Limit (LEL).

3. Any solid or viscous substances capable of obstructing wastewater which will or may cause obstruction to the flow of wastewater or other interference with the operation of the sewer system;

4. Any noxious, malodorous or toxic liquids gases, vapors or fumes, solids, or other substances which, either singly or by interaction with other wastes, may cause acute or chronic worker health and safety problems, a public nuisance, a hazard or interference with any part of the sewer system;

5. Any industrial wastewater containing a hazardous or toxic substance which, either singly or by interaction with other substances, injures or interferes with the sewer system or constitutes a hazard to humans or animals, or creates a hazard in, or adversely affects the receiving waters, or results in such substances being discharged in combined sewer overflows or sewage treatment plant effluent in any concentrations in excess of limitations imposed by any permit, law or regulation;

6. Any wastes, wastewaters or substances having a pH less than 5.0 or more than 11.5, or capable of causing damage or hazard to structures, equipment, processes or personnel of the sewer system, unless these limits are modified by permit.

7. Any liquid or vapor having a temperature higher than 65 degrees Celsius (149 degrees Fahrenheit) or containing heat in amounts which will inhibit biological activity, or result in interference at the treatment plant. In no case shall a discharge to the sewer system contain heat in such quantities that the temperature of the treatment plant influent exceeds 27 degrees Celsius (80 degrees Fahrenheit);

8. Any material trucked or hauled from a cesspool, holding or septic tank or any other nondomestic source, except such material received at designated locations under City contract or permit in accordance with any other applicable requirements of the City Code 17.34 or rules adopted hereunder;

9. Any substance which may solidify or become discernibly viscous at temperatures above 0 degrees Celsius or 32 degrees Fahrenheit;

10. Any material that has not been properly comminuted to 0.65 centimeters (1/4 inch) or less in any dimension;

11. Any slugload, as defined in City Code 17.34 or rules adopted hereunder;

12. Any substances with excessive color, as determined by the Director of Environmental Services, which are not removed in the treatment process;

13. Any batch discharges without written permission from the Director of Environmental Services. Batch discharges shall comply with all other requirements of City Code 17.34 and rules adopted hereunder;

14. Any concentrations of inert suspended or settleable solids which may interfere with the operation of the sewer system;

15. Any concentrations of dissolved solids which may interfere with the operation of the sewer system;

16. Any radioactive material, except in compliance with a current permit issued by the Oregon State Health Division or other state or federal agency having jurisdiction;

17. Any substance which may cause sewer system effluent or treatment residues, sludges, or scums, to be unsuitable for reclamation and reuse or which interferes with the reclamation process. (In no case, shall a substance discharged to the sewer system cause the City to be in noncompliance with sludge use or disposal criteria, guidelines or regulations developed under the Clean Water Act; any criteria, guidelines or regulations affecting sludge use or disposal developed pursuant to the Solid Waste Disposal Act (42 USC 6901), the Clean Air Act (42 USC 1857), the Toxic Substances Control Act (15 USC 2601), or any other federal or State statutes, regulations or standards applicable to the sludge management method being used, or any amendments thereto.)

18. Petroleum oil, nonbiodegradeable cutting oil, or products of mineral oil origin in amounts that will cause interference or pass through.

19. Noncontact cooling water (except that noncontact cooling water may be discharged to the separate storm sewer system upon approval by the Director of Environmental Services);

20. Any substance that causes the City to violate the terms of its NPDES permit.

Appendix 1
DEFINITIONS

Abbreviations

BOD_5	Five-day biochemical oxygen demand
mg/L	Milligrams per liter
k	Kilograms
m^3/d	Cubic meters per day
ppm	Parts per million (assumed equal to milligrams per liter)
POTW	Publicly owned treatment works
WPCL	Water Pollution Control Laboratory

Averages for BOD, TSS, and chemical parameters are based on arithmetic mean of samples taken.

Definitions

Bypass

The intentional diversion of wastestreams from any portion of a permittee's treatment facility.

Compatible Pollutant

Biochemical oxygen demand, suspended solids, pH and fecal coliform bacteria, and additional pollutants that the City treatment works is designed to treat.

Conventional Pollutants

Classification of industrial pollutants, which includes BOD (biochemical oxygen demand), suspended solids, fecal coliform, pH (acidity/alkalinity), and other pollutants so designated by EPA, as defined by Section 304(a)(4) of the Clean Water Act.

Director of Environmental Services

The Director of Environmental Services of the City of Portland, Oregon, or that person's duly authorized representative or agent.

City, or City of Portland

The municipality of Portland, Oregon, a municipal corporation of the State of Oregon, acting through the City Council or any board, committee, body, official, or person to whom the Council shall have lawfully delegated the power to act on behalf of the City. Unless a particular board, committee, official, or person is specifically designated in these rules and regulations, wherever action by the City is explicitly required or implied herein, it shall be understood to mean action by the Director of Environmental Services of Portland, Oregon, or that person's duly authorized representative or agent.

Effective Date of this Permit

The date this permit is signed by the Director of the Bureau of Environmental Services.

Expiration Date

From 1 to 5 years beyond the effective date of this permit.

Hazardous or toxic substances

Hazardous or toxic substances are those substances referred to in section 101(14) of the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (42 U.S. Code 9601 et seq.), section 502(13) of the Clean Water Act, and any other substances so designated by the Director of Environmental Services and contained in rules adopted pursuant to this Chapter.

Industrial Waste

Any liquid, solid, or gaseous substance (or combination thereof) resulting from any process of industry, manufacturing, commercial food processing, business, agriculture, trade, or research, including but not limited to the development, recovery, or processing of natural resources and leachate from landfills or other disposal sites.

Industrial Wastewater Discharge Permit

A permit to discharge industrial wastewater into the City sewer system issued under the authority of the City Code, which prescribes certain discharge requirements and limitation.

Interference

Interference means a discharge which, alone or in conjunction with a discharge or discharges from other sources, inhibits or disrupts the normal operation of the City sewer system, or which causes a violation of any requirement of the POTW's NPDES permit (including an increase in the magnitude or duration of a violation) or any increase in the cost of treatment of sewage or in the cost of sewage sludge use or disposal in compliance with the following statutory provisions and regulations or permits issued thereunder (or more stringent State or local regulations); Section 405 of the Clean Water Act, the Solid Waste Disposal Act (including Title II, more commonly referred to as the Resource Conservation and Recovery Act), and including State regulations contained in any State sludge management plan prepared pursuant to Subtitle D of RCRA, the Clean Air Act, the Toxic Substances Control Act, and the Marine Protection, Research and Sanctuaries Act.

Maximum Daily Discharge Limitation

The highest allowable daily discharge.

Nonconventional Pollutants

All pollutants that are not specifically designated as either conventional or toxic.

Oil and Grease

Fats, Oils and Grease. Fats, oils and grease are those substances which are measured by USEPA Method 1664: N-Hexane Extractable Method (HEM) and Silica Gel Treated N-Hexane Extractable Material (SGT-HEM).

(a) Non-polar fats, oils and grease are that portion of fats, oils and grease which is measured as non-polar (from petroleum sources) by USEPA Method 1664.

(b) Polar fats, oils and grease are that portion of fats, oils and grease which is determined to be polar (of animal or vegetable origin) by USEPA Method 1664.

Pass Through

Pass through means a discharge which exits the POTW into waters of the United States in Quantities or concentrations which, alone or in conjunction with a discharge or discharges from other sources, is a cause of a violation of any requirement of the POTW's NPDES permit (including an increase in the magnitude or duration of a violation).

POTW

POTW means Publicly Owned Treatment Works, which includes any devices and systems, owned by a State or municipality, used in the collection, transportation, storage, treatment, recycling and reclamation of wastewater.

Pretreatment

The reduction of the amount of pollutants, the elimination of pollutants, or the alternation of the nature of pollutant properties in wastewater to a non-harmful state, prior to or in lieu of discharge of such pollutants into the City sewer system.

Sampling

a. The "monthly average" other than pH is the arithmetic mean of samples collected during a calendar month.

b. The "daily maximum" is defined as the greatest allowable value for any calendar day.

c. The "four day average" is defined as the average of four discrete sampling events for a particular pollutant, which is determined by the sampling frequency and not necessarily four consecutive calendar days.

d. A " composite sample" is a series of individual discrete samples taken at selected intervals based on either an increment of flow or time. The samples are mixed together to approximate the average composition of discharge to the City sewer system. A composite sample for one day shall consist of a pool of samples, collected over the operational period of the production day.

e. A "Grab" sample is an individual sample collected in less than 15 minutes, without regard for flow or time.

f. A "Grab-Composite" is a minimum of four grab samples collected and preserved over a 24-hour period and combined to provide a representative sample of effluent being discharged.

Schedule of Compliance

A schedule of remedial measures, including an enforceable sequence of actions or operations leading to compliance with an effluent limitation or other limitation, prohibition, or standard.

Severe Property Damage

Substantial physical damage to the treatment facilities that causes them to become inoperable, or substantial and permanent loss of natural resources that can occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.

Slugload

A slugload is any discharge of a non-routine, episodic nature, including but not limited to an accidental spill or a non-customary batch discharge.

Solid Waste

Any garbage, refuse, or sludge from a waste treatment plant, water supply treatment plant, or air pollution control facility including solid, liquid, semisolid, or contained gaseous material resulting from industrial, commercial, mining, and agricultural operations, and from community activities, but does not include solid or dissolved material in domestic sewage, or solid or dissolved materials in irrigation return flows or industrial discharges that are point sources subject to permits.

Solid Waste Disposal

The final placement of refuse that cannot be salvaged or recycled.

Solvent Management Plan

A plan that specifies the toxic organic compounds used, the method of disposal used (instead of dumping into wastestreams), and procedures for ensuring that toxic organics do not spill or leak into wastewater discharged to the City sewer system.

Total Dissolved Solids

The total dissolved (filterable) solids as determined by use of the method specified in the list of approved test procedures.

Total Organic Active Ingredients

The sum of all organic active ingredients covered by the organic pesticide chemicals manufacturing subcategory, which are manufactured at a facility subject to the effluent guidelines for pesticides chemicals manufacturing.

Total Solids

The sum of dissolved and undissolved constituents in water or wastewater, usually expressed as milligrams per liter.

Total Suspended Solids

Total suspended matter that either floats on the surface or is in suspension in water or wastewater and that are removable by laboratory filtering (as described in *Standard Methods for the Examination of Water and Wastewaters,* current edition) or Guidelines Establishing Test Procedures for the analysis of Pollutants, contained in 40 CFR 136, as published in the *Federal Register.*(Bureau of Environmental Services Administrative Rules I[22])

Upset

"Upset" means an exceptional incident in which there is unintentional and temporary noncompliance with applicable pretreatment standards, because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.

Waste

Unwanted materials left over from manufacturing processes, or refuse from places of human or animal habitation.

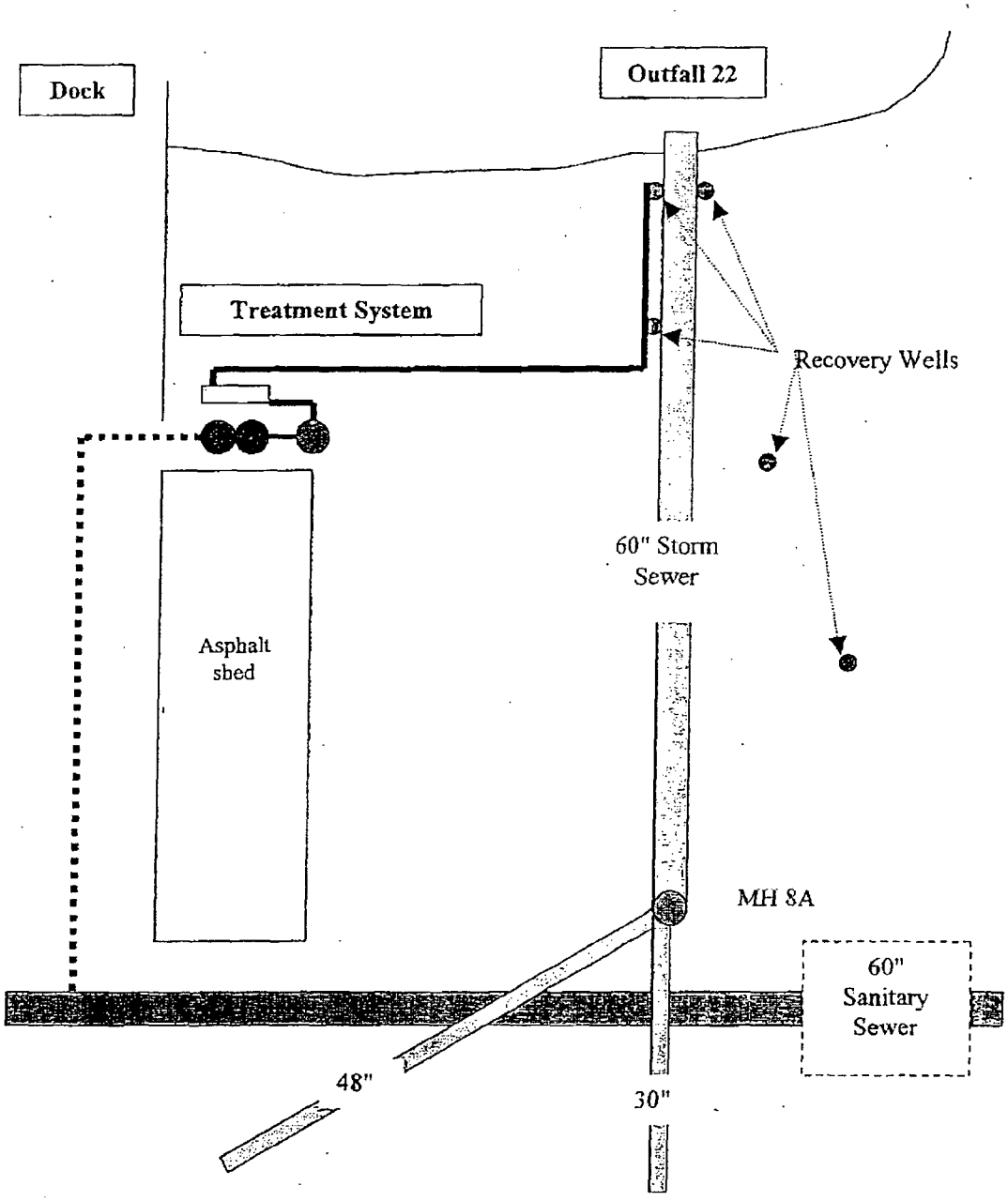
Wastewater

Industrial waste, sewage, or any other waste, including that which may be combined with any groundwater, surface water, or stormwater that may be discharged to the city sewer system.

Water Pollution

The addition of enough harmful or objectionable material to damage water quality.

Appendix 2
SAMPLING LOCATION MAP



Appendix 3
RESERVED: ACCIDENTAL SPILL PREVENTION PLAN

Already on file with the City.

COPY

ENVIRONMENTAL MANAGEMENT, INC.

April 22, 2003
Project B17-051

Mr. Eric DeBerry
Bureau of Environmental Services – City of Portland
Water Pollution Control Laboratory
6543 North Burlington Avenue
Portland, Oregon 97203-5452

Re: Accidental Spill Prevention Plan
Groundwater Extraction and Treatment System
ConocoPhillips Willbridge Terminal
Portland, Oregon

Dear Mr. DeBerry:

KHM Environmental Management, Inc. (KHM) has prepared this Accidental Spill Prevention Plan for groundwater and separate-phase hydrocarbon (SPH) extraction and treatment system located at the ConocoPhillips Willbridge Terminal in Portland, Oregon (Figure 1). KHM has prepared this Accidental Spill Prevention Plan on behalf of ConocoPhillips Company (ConocoPhillips) and Chevron Environmental Management Company (Chevron) to satisfy the requirements of the general conditions, Item 1 of the Tosco Refining Company/Chevron Products Company Wastewater Discharge Permit (Permit Number 500.015) issued by the City of Portland Environmental Services. This plan has been prepared to meet the requirements of Section 17.34.090 of the City Code. Chevron and ConocoPhillips (formerly referred to as Tosco) share responsibility for the operation and maintenance (O&M) of this extraction and treatment system which discharges treated groundwater, under permit, to the City of Portland sanitary sewer located below NW Front Avenue.

GROUNDWATER EXTRACTION AND TREATMENT SYSTEM DESCRIPTION

At this site, a combination of groundwater remediation measures has been implemented to achieve the goal of protecting the Willamette River from seepage of SPH and dissolved petroleum hydrocarbons from the backfill material around the City of Portland 60-inch diameter storm sewer. These measures currently consist of sheetpile cutoff wall installed intersecting the storm sewer backfill material at the outfall at the Willamette River

(Figure 2). This cutoff wall has a concrete collar around the storm sewer pipe outfall and uses six recovery wells with total fluids pumps to collect SPH and groundwater from behind the wall. Recovered liquids are treated with an oil/water separator, batch tank, and liquid-phase carbon absorption vessels (Figure 3). The treatment system equipment is placed on a bermed (contained) concrete slab to provide secondary containment. The treated groundwater is discharged by pumping to a sump on the ConocoPhillips terminal property, near the sanitary sewer line in Front Avenue where it is discharged to the sanitary sewer by gravity.

The groundwater extraction and treatment system is configured to minimize the potential of both accidental and illicit spills of hazardous substances that could reach the sanitary sewer. The system and associated piping are located a good distance away from the City of Portland sanitary sewer, and several design features and automated safety controls have been included in the system to lessen the likelihood of an accidental release reaching the sanitary sewer. Details on the hazardous substance handling, controlled features, and spill prevention measures are provided in the sections below.

MATERIALS AND HAZARDOUS SUBSTANCES HANDLED

The SPH recovered by the extraction wells behind the cutoff wall is generally characterized as diesel-range hydrocarbon fuel, indicating historical release(s) of diesel fuel to the subsurface. This diesel fuel SPH represents a majority of the hazardous substances handled by this treatment system that has potential, in the event of a spill, to enter the City of Portland sanitary sewer. In addition to this SPH, extracted groundwater contains dissolved diesel fuel constituents that are also treated by this system. Minor quantities of equipment lubricating oils and 'Simple Green' (brand name) cleaner are occasionally used for treatment system maintenance.

Treatment system operation generates sludge. The sludge forms in the bottom of the oil/water separator and the surface of the activated carbon in the carbon treatment units. This sludge is periodically removed from the treatment system and disposed of off-site. This sludge generally consists of precipitated iron and minerals, fine particulates recovered by the groundwater extraction system, and diesel fuel constituents.

SPILL PREVENTION AND CONTROL MEASURES

Controls and response measures used to prevent potential spills, and, in the event of spill, contain the spilled material and limit the potential for the material to reach the sanitary sewer are presented in this section.

Pumped Discharged Connection – Water that enters the treatment system batch tank is pumped through the activated carbon treatment units prior to discharge to the sanitary sewer line in NW Front Avenue (Figure 3). Plumbing from the

activated carbon units is connected to a subgrade drain line outside the contained equipment area. This subgrade line discharges to a pressure/vacuum break sump on the ConocoPhillips property, (Figure 2), before flowing by gravity to the City of Portland sanitary. Electrical power failure or system alarm conditions shut down this batch tank transfer pump, eliminating potential discharge to the sanitary sewer from the contained equipment slab.

Contained Equipment Slab and Batch Tank Pump Controls - The treatment equipment is located on a contained, concrete equipment slab. Liquids within the contained slab collect in a central sump that is pumped back into the treatment system for treatment prior to potential discharge to the sanitary sewer. This central collection sump pumps the liquids into the treatment system oil/water separator. Minor amounts of oil or SPH would be contained within the oil/water separator. In the unlikely event of a catastrophic spill of SPH within the containment area (i.e. failure of the SPH holing tank), it is possible that the oil/water separator would fill with SPH resulting in the discharge of SPH to the batch tank. The pumping system that pumps water from the batch tank is operated by electrical conductivity probes. Should SPH enter the batch tank, the lack of electrical conductivity of the SPH would stop operation of the pump and would contain the SPH within the batch tank.

Oil/Water Separator High Level Shut-off Switch – Should the high level sensor in the oil/water separator be activated, the groundwater extraction system and batch tank transfer pump will shut off.

Batch Tank High Level Shut off Switch - Should the high level sensor in the batch tank be activated, the groundwater extraction will shut off.

SPH Collection Tank High Level Shut off Switch- Should the high level sensor in the SPH collection tank be activated, the groundwater extraction will shut off.

Carbon Treatment Unit's High Pressure Switch - Should the carbon unit's high pressure sensor be activated by high back-pressure on the carbon units, the groundwater extraction system and batch tank transfer pump will shut off.

Treatment Slab Containment Overflow Shut off Switch - Should this switch measure high level of liquids within the containment of the treatment slab, the groundwater extraction system and batch tank transfer pump will shut off.

POTENTIAL POINTS OF ENTRY TO THE SANITARY SEWER

The only potential point for entry of an accidental release of SPH or untreated water from the system to the sanitary sewers is at the point of discharge to the sanitary sewer below NW Front Avenue. A pressure/vacuum break sump connection to the sanitary sewer is away from the treatment equipment and storage of materials (Figure 2), making it unlikely that an accidental release would reach the sanitary sewer.

SPILL RESPONSE MEASURES

KHM staff provides routine system O&M services on behalf of ConocoPhillips and Chevron. KHM staff providing these O&M services has been instructed in appropriate spill response measures, consisting of:

- Shut off of all extraction pumps and the batch tank transfer pump.
- If possible, visual determination of the type of fluid spilled.
- Use of absorbent booms or dry absorbent material to completely contain the spill.
- Cleanup of spill using dry absorbent. (Note: Only dry cleanup methods will be employed to cleanup spills [i.e., no use of water to wash spilled materials from pavement will be conducted]).
- Immediately following completion of spill control and containment, notification of the following personnel:
    - ConocoPhillips Terminal Compliance Manager: Bill Collins @ 503-248-1552.
    - KHM Project Manager: Kelly Kline @ 503-639-8098.
    - City of Portland Environmental Services, Water Pollution Control Laboratory: Eric DeBerry @ 503-823-5538.

DESCRIPTION OF EMPLOYEE TRAINING

KHM staff who provide routine O&M services receive the following training that assists with implementation of appropriate spill response measures. This KHM staff training consists of:

- Site-specific and equipment-specific instruction on the groundwater and SPH extraction and treatment system. Operation and testing of system controls is part of this training.

- ConocoPhillips facility-specific safety training.
- Hazardous materials training (OSHA 40-hour) in accordance with 40 CFR 1910.120.

ConocoPhillips staff who monitor facility operations and who could observe system problems have received the following training that would assist with appropriate response measures:

- ConocoPhillips facility-specific safety training.
- Facility Response Plan training (Facility Response Plan prepared in compliance with Section 4202 of Oil Pollution Act – 40 CFR 112.20).
- Treatment system-specific training on how to shut down the entire groundwater and SPH extraction and treatment system and notify KHM.

POSTED NOTICE

A copy of the attached sign has been posted near the system to inform employees to contact the Bureau of Environmental Services in case of spills or uncontrolled discharges.

KHM appreciates the opportunity to work with you on this project. If you need further information or have any questions, please call (503) 639-8098.

Sincerely,
KHM Environmental Management, Inc.

Kelly A. Kline, R.G.
Senior Geologist

R. Scott Miller, P.E.
Principal Engineer

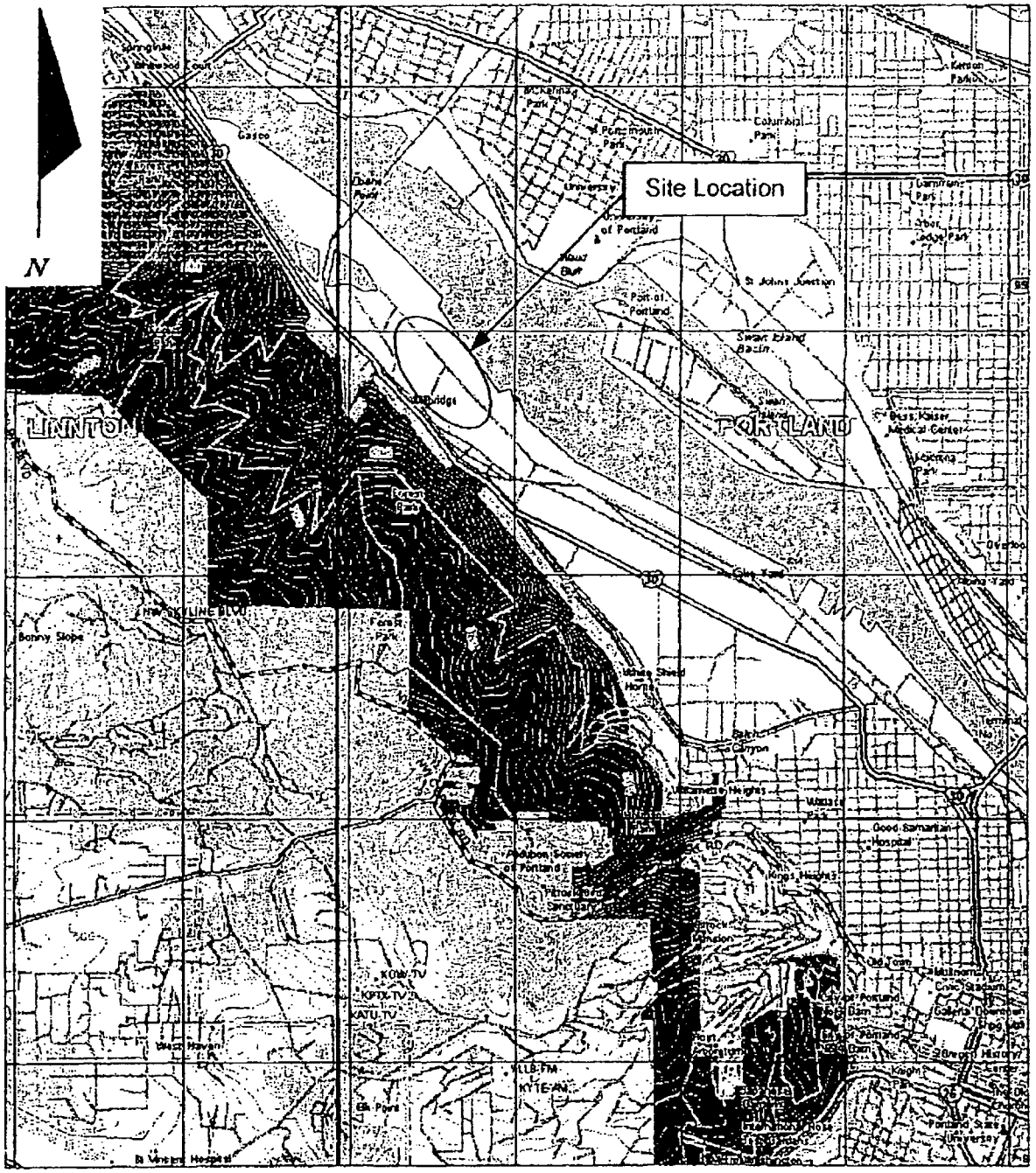
Attachments: Figure 1 – Site Location Map
Figure 2 – System Layout
Figure 3 – Process and Flow Diagram
Notice Posted at Treatment System

cc: Mr. Martin Cramer, ConocoPhillips Company, Portland, Oregon ✓
Mr. Gerry Koschal, PNG Environmental, Inc., Tigard, Oregon
Mr. Gerald O'Regan, Chevron Environmental Management Company, San Ramon, California

NOTICE

IN THE EVENT OF A SPILL OR UNCONTROLLED DISHARGE

- Shut off all extraction pumps and the batch tank transfer pump.
- Determine visually the type of fluid spilled.
- Use absorbent booms or dry absorbent material to completely contain the spill.
- Clean up spill using dry absorbent. (Note: Only dry clean-up methods will be employed to clean up spills [i.e., no use of water to wash spilled materials from pavement will be conducted]).
- Immediately following completing spill control and containment, notify the following personnel:
    - ConocoPhillips Terminal Compliance Manager: Bill Collins @ 503-248-1552.
    - KHM Project Manager: Kelly Kline @ 503-639-8098.
    - City of Portland Environmental Services, Water Pollution Control Laboratory: Eric DeBerry @ 503-823-5538.



REFERENCES

USGS 7.5 Minute Topographic Maps
Portland, Oregon-Washington
Linnton, Oregon
DeLorme TopoQuads, 1999
SCALE: 1 inch = 3750 feet

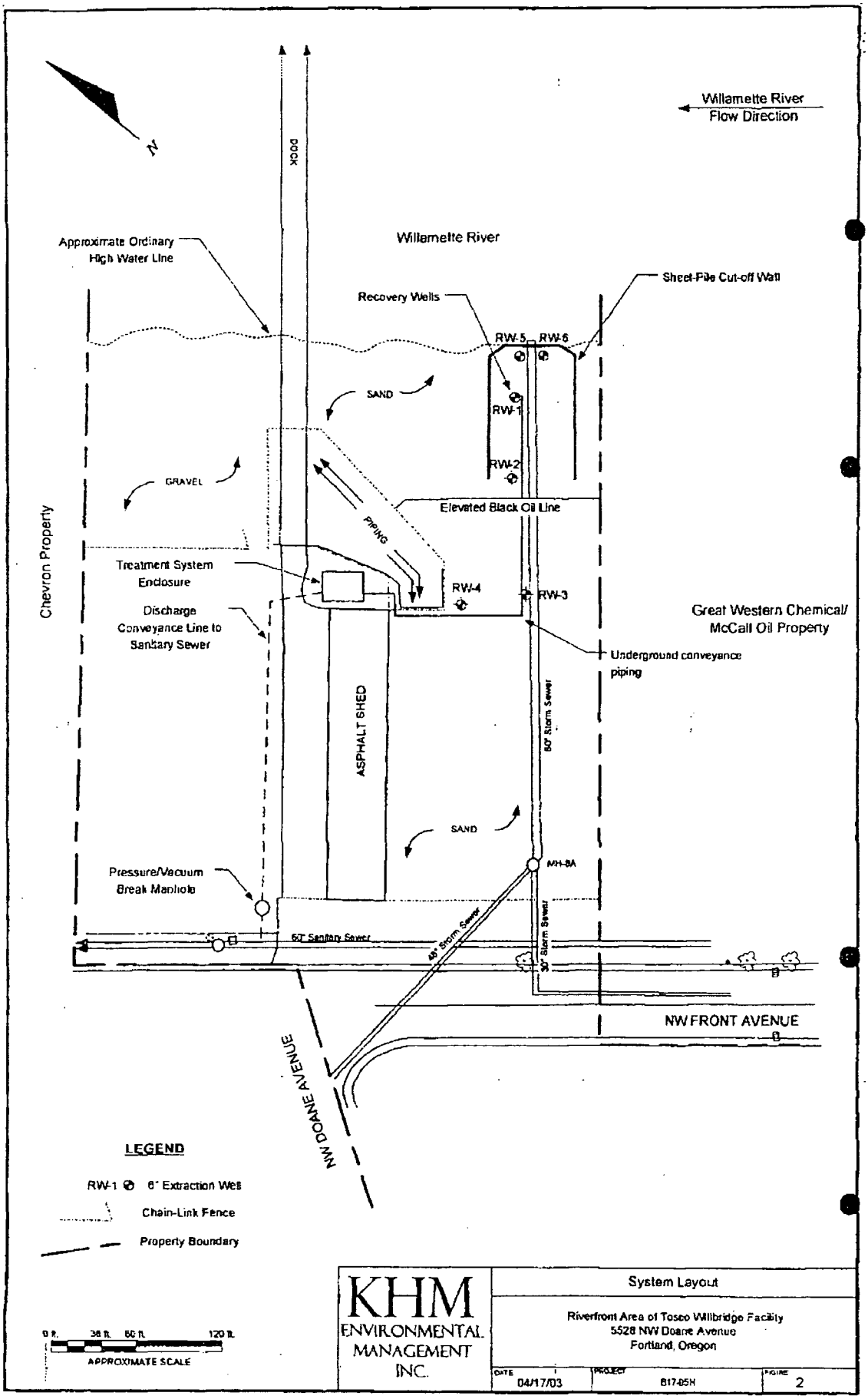
KHM
ENVIRONMENTAL MANAGEMENT INC.

SITE LOCATION MAP

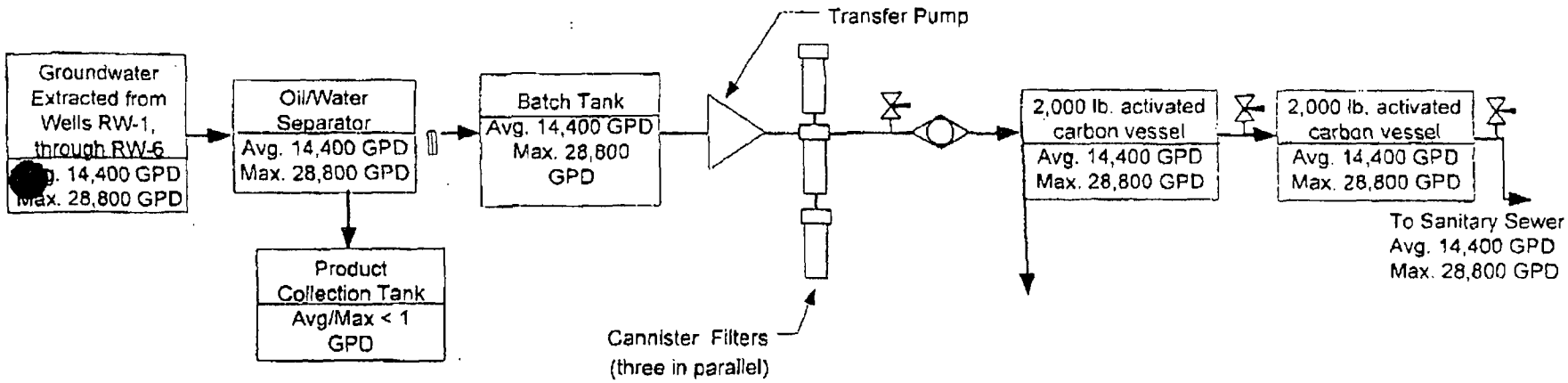
Willbridge Petroleum Terminals

Portland, Oregon

DATE	PROJECT	FIGURE
4/17/03	B17-05H	1


N
Willamette River
Flow Direction
DOCK
Willamette River
Approximate Ordinary
High Water Line
Recovery Wells
Sheet-Pile Cut-off Wall
RW-5
RW-6
RW-1
RW-2
SAND
GRAVEL
Elevated Black Oil Line
PIPING
Chevron Property
Treatment System
Enclosure
Discharge
Conveyance Line to
Sanitary Sewer
RW-4
RW-3
Great Western Chemical/
McCall Oil Property
Underground conveyance
piping
ASPHALT SHED
60" Storm Sewer
SAND
MH-8A
Pressure/Vacuum
Break Manhole
6" Sanitary Sewer
48" Storm Sewer
30" Storm Sewer
NW FRONT AVENUE
NW DOANE AVENUE
LEGEND
RW-1 6" Extraction Well
Chain-Link Fence
Property Boundary
0 ft.
30 ft.
60 ft.
120 ft.
APPROXIMATE SCALE
KHM
ENVIRONMENTAL
MANAGEMENT
INC.
System Layout
Riverfront Area of Tosco Willbridge Facility
5528 NW Doane Avenue
Portland, Oregon
DATE
04/17/03
PROJECT
617-05H
FIGURE
2

Process and Flow Diagram



LEGEND

- Monitoring port
- Flowmeter/totalizer
- Bag filter or Cartridge filter

KHM ENVIRONMENTAL MANAGEMENT, INC.

TITLE	Process and Flow Diagram
	Tosco Willbridge Terminal 5528 NW Doane Avenue Portland, Oregon
DATE 4/17/03	PROJECT B17-05H FIGURE 3

Appendix 4
Individual Organic Compounds - Pollutant Prohibitions

POLLUTANT PROHIBITIONS	*METHOD DETECTION LIMIT(mg/L)*
Volatiles	
Bromodichloromethane	0.005
Bromoform	0.005
Bromomethane	0.010
1,1,1,2-Tetrachloroethane	0.010
1,1,2-Trichloroethane	0.005
1,1-Dichloroethene	0.005
Chloroethane	0.050
Chloromethane	0.005
Dibromochloromethane	0.005
Vinyl Chloride	0.050
Base/Neutral extractables	
1,2,4-Trichlorobenzene	0.005
1,2-Dichlorobenzene	0.005
1,2-Diphenylhydrazine	0.005
1,3-Dichlorobenzene	0.005
1,4-Dichlorobenzene	0.005
2,6-Dinitrotoluene	0.005
4-Bromophenyl-Phenyl Ether	0.005
Bis (2-Chloroethoxy)methane	0.010
Bis (2-Chloroisopropyl)ether	0.010
Hexachlorobenzene	0.005
Hexachlorobutadiene	0.005
Hexachlorocyclopentadiene	0.005
N-Nitroso-Di-N-Propylamine	0.005
Pesticides	
4,4-DDD (p,p-TDE)	0.001
4,4-DDE (p,p-DEX)	0.001
4,4-DDT	0.001
a-BHC (alpha)	0.001
b-BHC (beta)	0.001
d-BHC (delta)	0.001
Dieldrin	0.001
Endosulfan II (beta)	0.001

Endosulfan Sulfate	0.001
Endosulfan-I (alpha)	0.001
Endrin	0.001
Endrin Aldehyde	0.001
g-BHC (gamma) (Lindane)	0.001
Heptachlor	0.001
Heptachlor Epoxide	0.001
Toxaphene	0.001
Polychlorinated biphenyls (PCBs)	
PCB 1016	0.001
PCB 1221	0.001
PCB 1232	0.001
PCB 1242	0.001
PCB 1248	0.001
PCB 1254	0.001
PCB 1260	0.001

UPLOADED INTO WEBEX
DATE: 8/14/07
BY: DEVON

FILE

August 14, 2007

Mr. Eric De Berry
City of Portland Bureau of Environmental Services
Industrial Source Control Division
6543 N. Burlington Avenue
Portland, Oregon 97203-5452

Subject: **Wastewater Discharge Permit #500.015**
Application for Renewal
ConcoPhillips Company / Chevron Products Company
Groundwater Remediation Site
5528 NW Doane Avenue
Portland, Oregon 97210
Delta Project No: ORZ0922PER

DELTA

Dear Mr. De Berry:

This letter is being submitted as an application to renew Wastewater Discharge Permit #500.015 for the above mentioned site (**Figure 1**) which expires on September 15, 2007. On behalf of ConocoPhillips Company (ConocoPhillips) and Chevron Products Company(Chevron), Delta Environmental Consultants, Inc. (Delta) has been authorized to perform operations and maintenance activities for the groundwater treatment system. The permit application forms are included as **Appendix A**.

Groundwater is currently extracted from three remediation wells (RW-1, RW-2, and RW-5) located behind the 60-inch storm sewer cutoff designed to intercept separate phase hydrocarbons (SPH) and groundwater migrating along the backfill of the 60-inch diameter storm sewer trench. This cutoff wall was installed in November and December 2001 with 20-foot-long steel sheet-pile with sealed joints between the sheet-piles. In addition, in Third Quarter 2006 an additional cutoff wall was installed in the area of the former 27-inch storm sewer and spanning both the ConocoPhillips and Chevron properties. Groundwater extraction was initiated from four extractions wells (EW-1 through EW-4) located behind these walls in January 2007. A site plan is included as **Figure 2**.

Extracted groundwater is routed to the remediation compound where it is passed through an oil water separator, into a batch tank, and treated through two 2,000-pound granular activated carbon (GAC) vessels before being discharged to the sanitary sewer. The SPH recovered from the oil-water separator is stored in a collection tank and currently transported from the site to Oil-Re-Refining in Portland, Oregon for recycling. A process flow diagram is included as **Figure 3**.

a member of Inogen Environmental Alliance

7150 SW Hampton Suite 220 Tigard, Oregon 97223 USA
Phone 503.639.8098 / 800.477.7411 Fax 503.639.7619 www.deltaenv.com

In addition to the current remediation system configuration, Delta is currently evaluating technologies for pre-treating the wastewater for dissolved iron which is currently diminishing the life of the GAC vessels by hindering wastewater flow. One possible technology is to use ozone injection to precipitate dissolved iron which will then be removed by a media filter. Delta is requesting that this possible treatment configuration be allowed by the wastewater discharge permit.

Should you have any questions or concerns regarding the information provided in this request, please do not hesitate to contact me at (503) 639-8098.

Sincerely,

DELTA CONSULTANTS

Brian J. Pletcher, R.G.
Senior Project Manager

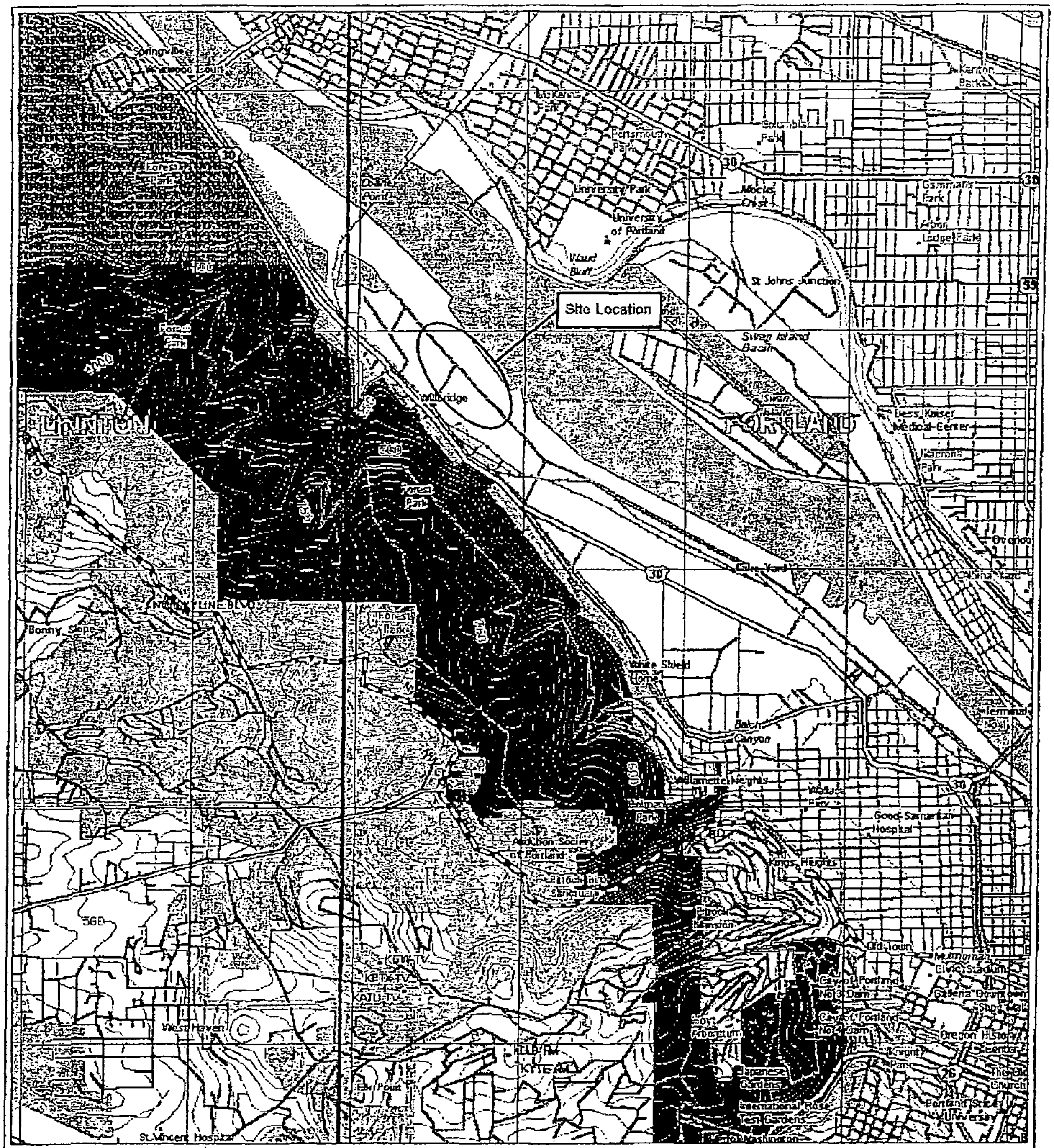
cc: Mike Noll, ConocoPhillips

Attachments:

Figure 1 – Site Location Map
Figure 2 – Site Plan with Remediation System Layout
Figure 3 – Site Plan with Wastewater Discharge Line
Figure 4 – Process Flow Diagram

Appendix A – Permit Application Forms

FIGURES



REFERENCES

USGS 7.5 Minute Topographic Maps
Portland, Oregon-Washington
Linnton, Oregon
DeLorme TopoQuads, 1999
SCALE: 1 inch = 3750 feet

North

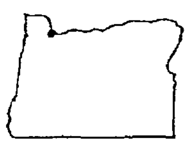


FIGURE 1

SITE LOCATION MAP

Willbridge Petroleum Terminals
Portland, Oregon

PROJECT NO. ORZ0922GW-6	DRAWN BY KNT 6-12-03	DELTA
FILE NO.	PREPARED BY CRF 5/1/07	
REVISION NO.	REVIEWED BY	

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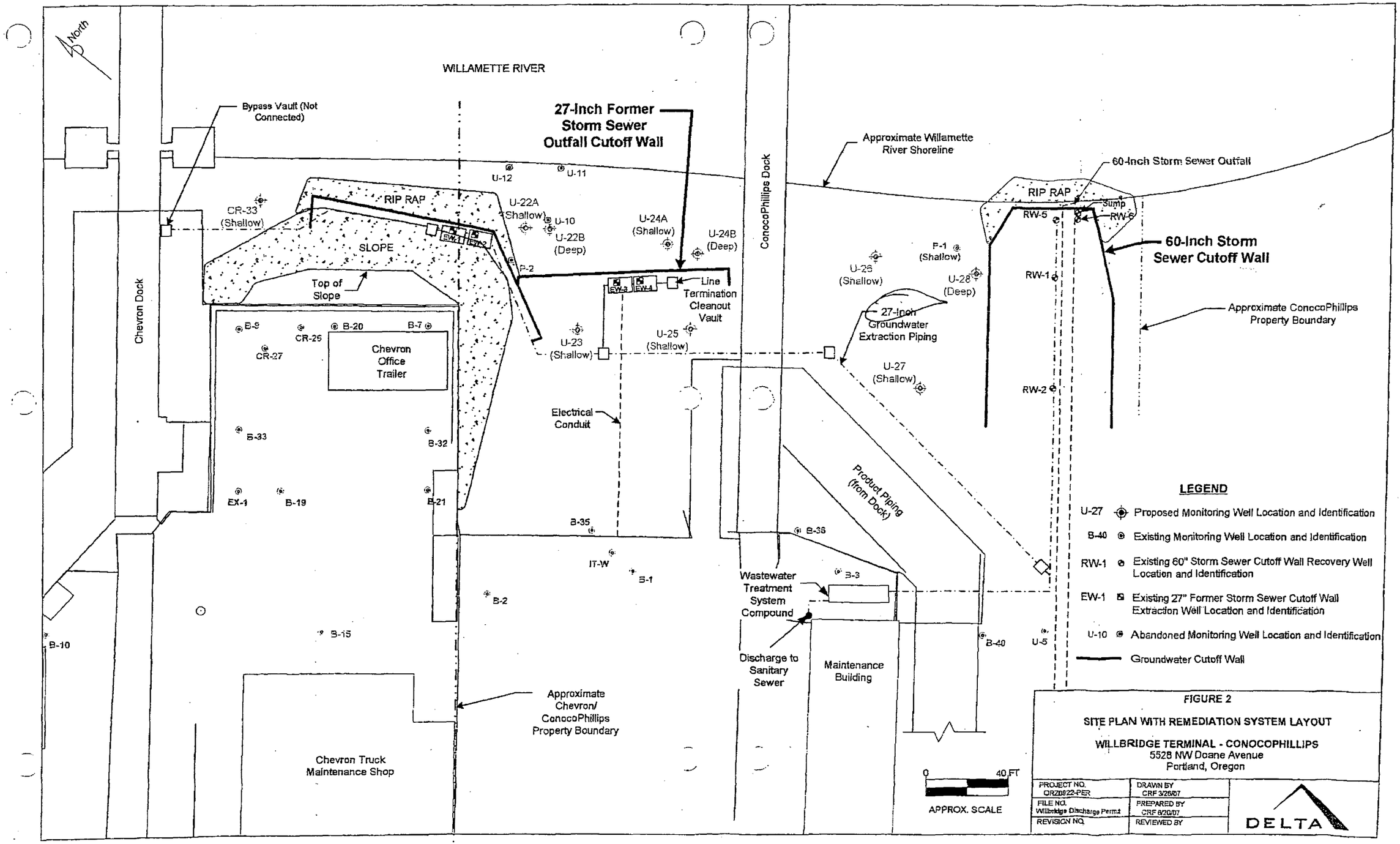


FIGURE 2

SITE PLAN WITH REMEDIATION SYSTEM LAYOUT

WILLBRIDGE TERMINAL - CONOCOPHILLIPS
5528 NW Doane Avenue
Portland, Oregon

PROJECT NO. CRZ0822-PER	DRAWN BY CRF 3/26/07
FILE NO. Willbridge Discharge Perm.t	PREPARED BY CRF 6/20/07
REVISION NO.	REVIEWED BY

DELTA

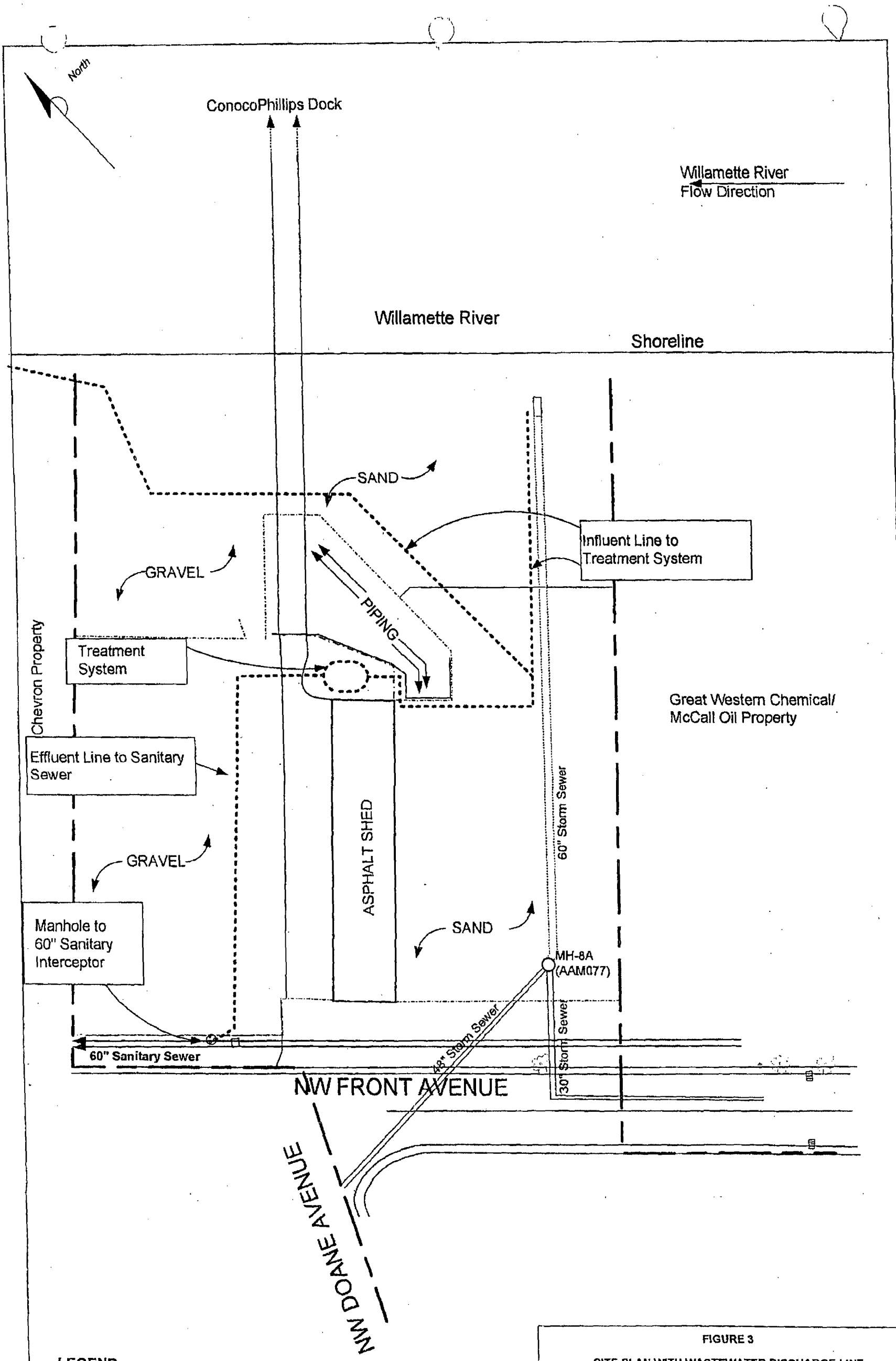


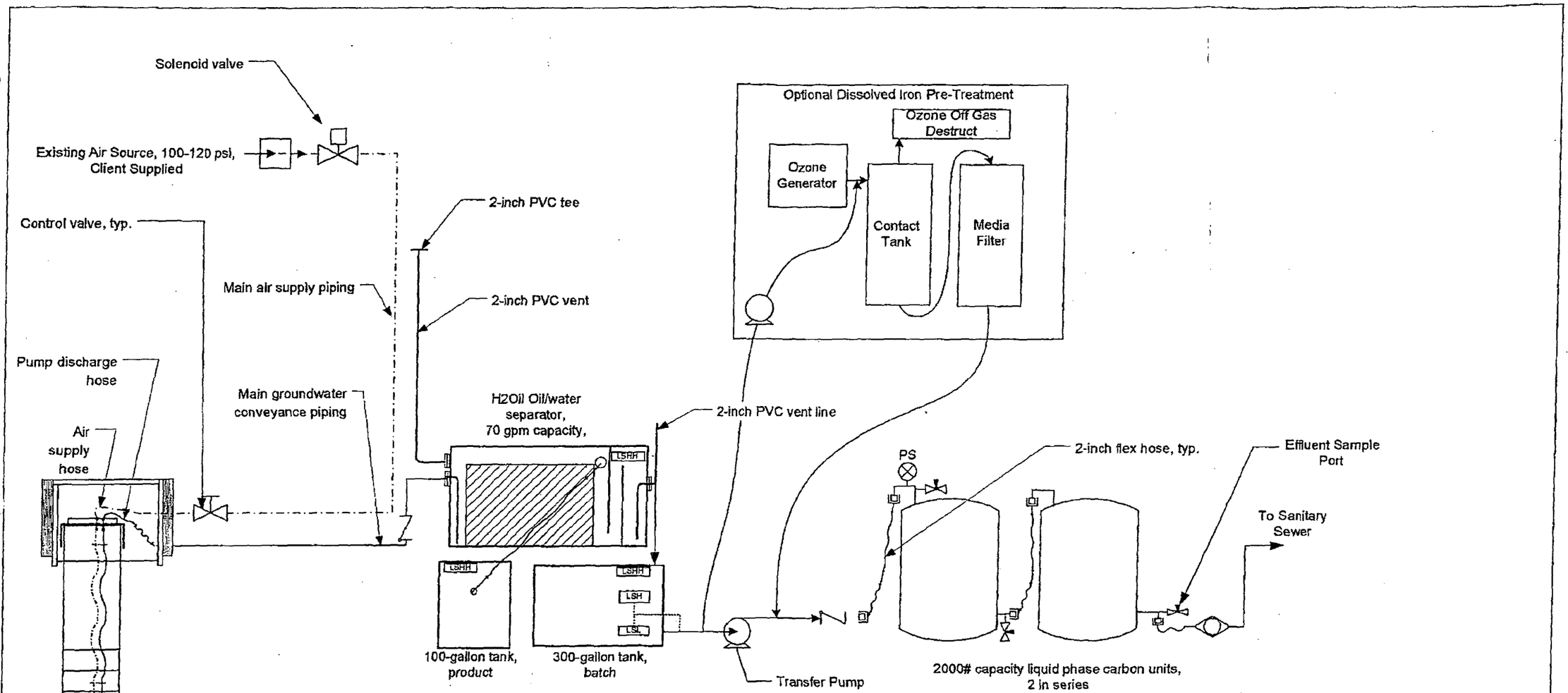
FIGURE 3

SITE PLAN WITH WASTEWATER DISCHARGE LINE

WILLBRIDGE TERMINAL - CONOCOPHILLIPS
5528 NW Doane Avenue
Portland, Oregon

PROJECT NO. ORZ0922-PER	DRAWN BY
FILE NO. DMR Permit Renewal	PREPARED BY CRF 8/21/07
REVISION NO.	REVIEWED BY

DELTA



LEGEND

- Monitoring port
- Flowmeter/totalizer
- PS — Pressure switch
- LSHH — Level switch, high shut off
- LSH — Level switch, high
- LSL — Level switch, low
- Quick disconnect
- Check valve

FIGURE 4

PROCESS FLOW DIAGRAM

WILLBRIDGE TERMINAL - CONOCOPHILLIPS
5528 NW Doane Avenue
Portland, Oregon

PROJECT NO. ORZ0922-PER	DRAWN BY
FILE NO. DMR Permit Renewal	PREPARED BY CRF 6/21/07
REVISION NO.	REVIEWED BY

DELTA

APPENDIX A
PERMIT APPLICATION FORMS

CITY OF PORTLAND
ENVIRONMENTAL SERVICES

Water Pollution Control Laboratory
6543 N. Burlington Ave., Portland, Oregon 97203-5452
(503) 823-5600

INDUSTRIAL WASTEWATER DISCHARGE PERMIT APPLICATION

SECTION I: GENERAL INFORMATION

Confidential Information - Indicate those sections of this application that you wish to remain confidential *as well as* your reasons for requiring confidentiality. Wastewater discharge characteristics can not be considered confidential.

1. ConocoPhillips Co. / Chevron Products Co.
(Company Name)

2. Groundwater Remediation Site
(Facility Name)

3. 5528 NW Doane Ave.
(Facility Address, Street)

Portland (City) OR (State) 97210 (Zip Code)

4. c/o Delta Environmental Consultants, Inc.
(Mailing Address, Street/PO. Box)

Tigard (City) OR (State) 97223 (Zip Code)

5. Provide the name of the person to contact on information contained in this questionnaire:

Brian Pletcher (Name) (503)639-8098 (Phone)

Project Manager (Title) (503)639-7619 (Fax)

6. Initial startup date of operations at this facility: December 2001

Rev. 9/14/98

SECTION I: GENERAL FACILITY INFORMATION, Continued

7. Person to be contacted in case of an emergency at this facility:

#1 Brian Plether (503)784-0303 cell
Name (503)639-8098 Phone

Project Manager - Delta Consultants (503)639-7619
Title Fax

8. Is all of the information previously submitted in your facility's *Environmental Survey Part II*, still current, up-to-date, and correct?

Not Applicable (per Eric De Berry) for Remediation System

Yes [ ] No [ ]

{A copy of your facility's Environmental Survey Part II is included for your reference.}

If you checked No, make the needed changes to the enclosed Environmental Survey Part II, initial and date all changes and send in the corrected copy of the Survey with the completed Permit Application.

#2 contact Person

Steve Kober
North West Area Supervisor
ConocoPhillips

p 503-248-1538
cell 206-730-5439
fax 503 248-1522

SECTION II: FACILITY PROCESS FLOW INFORMATION

1. For your facility, provide the following flows for each of your processes or proposed processes (i.e., manufacturing process line or other processes that may generate process wastewater).

Total Plant Flow in Gallons Per Day (gpd) discharged to the sanitary sewer collection system:

Daily Average 25,000 gpd Daily Maximum 86,000 gpd

Individual Process Flows in Gallons Per Day (gpd)

Process Description	Average Flow, gpd	Maximum Flow, gpd	Type of discharge
Groundwater Remediation	25,000	86,000	wastewater

2. Is an inspection or sampling manhole structure available on-site? Yes [X] No [ ]

- If No, is one planned? Yes [ ] No [ ]
- If Yes, provide location below and include as part of the process flow schematic (see also Attachment B).
- Location description: A sample port is available on the effluent line from the treatment system. In addition, a manhole exists on the discharge line prior to connecting to city sanitary sewer. SEE FIGURE 3 for location of discharge line.

3. Do you have, or plan to have, automatic sampling equipment or continuous wastewater flow metering equipment in use or included in future plans?

•	Current:	Flow Metering	Yes [X]	No [ ]	N/A [ ]
		Sampling Equipment	Yes [ ]	No [X]	N/A [ ]
•	Planned:	Flow Metering	Yes [ ]	No [ ]	N/A [X]
		Sampling Equipment	Yes [ ]	No [X]	N/A [ ]

If Yes, describe the equipment below and indicate the present or future location of this equipment on the process flow schematic in Attachment B:

A flow totalizer exists on the effluent of the treatment system.

4. Please describe below, or on a separate sheet of paper, any previous spills or slug discharges from the facility. Also list the clean-up actions taken as well as the remedial measures put in place to prevent a reoccurrence.

None.

TABLE 1 APPLICABLE LIMITS: [1]

Parameter	Suggested Analysis Method 40 CFR 136	Local Limit	Sample Type, Grab or Composite	Required Sampling
Metals				
Arsenic	200.7	0.2 mg/L	Composite	
Cadmium	200.7	0.7 mg/L	Composite	
Chromium	200.7	5.0 mg/L	Composite	
Copper	200.7	3.7 mg/L	Composite	
Lead	200.7	0.7 mg/L	Composite	
Mercury	245.1	0.010 mg/L	Composite	
Molybdenum	200.7	1.4 mg/L	Composite	
Nickel	200.7	2.8 mg/L	Composite	
Selenium	200.7	0.6 mg/L	Composite	
Silver	200.7	0.4 mg/L	Composite	
Zinc	200.7	3.7 mg/L	Composite	
Non-Metals				
BOD_5	405.1		Composite	
Closed Cup Flash Point	ASTM D-93-80	>140 °F	Grab	
Cyanide	335.2	1.2 mg/L	Grab	
Non-polar Fats, Oil, & Grease	1664	110. mg/L	Grab	
pH	150.1	5.0-11.5 S.U.	Grab	
Total Toxic Organics	624 & 625	2.13 mg/L		
Total Suspended Solids	160.2		Composite	
Dissolved Sulfide	376.2	4 mg/L	Grab	
Individual Organic Compounds				
Acrylonitrile	603	1.0 mg/L	Grab	
Chlordane	625	0.03 mg/L	Composite	
Chlorobenzene	624	0.2 mg/L	Grab	
Chloroform	624	0.2 mg/L	Grab	
1,2 Dichloroethane	624	0.5 mg/L	Grab	
2,4-Dinitrotoluene	625	0.13 mg/L	Composite	
Nitrobenzene	625	2.0 mg/L	Composite	
Pentachlorophenol	625	0.04 mg/L	Composite	
Trichloroethylene	624	0.2 mg/L	Grab	

[1] This table lists the applicable Local Limits for all Permitted Industrial Users. Categorical Industrial Users may have additional limits that apply.

SECTION III: FACILITY WASTEWATER INFORMATION

PART A. NON-CATEGORICAL INDUSTRIAL FACILITIES

1. Provide name and address of the commercial testing lab(s) who is (are) performing analyses:

Test America Analytical Testing Corporation
(Laboratory Name)

9405 S.W. Nimbus Avenue
(Street Address)

Beaverton (City) | OR (State) | 97008 (Zip Code)

(503) 906-9200 (Phone) | (503) 906-9210 (Fax)

2. List the Certification Program(s) in which the laboratory participates:

ORELAP No. OR100021

3. Compliance Certification: Compare the sample results against the listed Local Limits (Table 1).

a.) Is the facility meeting applicable pretreatment standards on a consistent basis?

Yes [X] No [ ] Don't Know [ ]

If Don't Know, then compliance must be evaluated after the baseline monitoring is completed.

If No, do you require:

b.) Additional operation and maintenance (O&M) to achieve compliance? Yes [ ] No [ ]

c.) New or additional pretreatment facilities to achieve compliance? Yes [ ] No [ ]

If additional O&M or new or additional pretreatment equipment will be required for the facility to meet pretreatment standards on a consistent basis, attach a description of what is required and a proposed schedule for completion of the work.

d.) I have provided a compliance schedule. Yes [ ] No [ ]

Describe the compliance schedule of events on a separate sheet. Detail what the proposed work entails and the proposed due dates for each of the tasks involved. The proposed compliance schedule is subject to prior approval by the City.

PART B. CATEGORICAL INDUSTRIAL FACILITIES NA

1. Summarize each regulated process: (report concentrations in mg/L or mass in lbs.).

Regulated Process Description	Production Rate	Process Flow	SIC Code	Pretreatment Category

Total plant flow: (In gallons per day, gpd) _____

2. Provide name and address of the commercial testing lab(s) who is (are) performing analyses:

_____
(Laboratory Name)

_____
(Street Address)

_____ _____ _____
(City) (State) (Zip Code)

_____ _____
(Phone) (Fax)

3. List the Certification Program(s) in which the laboratory participates:

_____

_____

_____

4. Compliance Certification: Compare the sample results against the listed Categorical Standards and those listed in the Local Limits (Table 1).

   a.) Is the facility meeting applicable pretreatment standards on a consistent basis?

   Yes [ ] No [ ] Don't Know [ ]

   If Don't Know, then compliance must be evaluated after the baseline monitoring is completed.

   If No, do you require:

   b.) Additional operation and maintenance (O&M) to achieve compliance?

   Yes [ ] No [ ]

   c.) New or additional pretreatment facilities to achieve compliance?

   Yes [ ] No [ ]

   If additional O&M or new or additional pretreatment will be required for the facility to meet pretreatment standards on a consistent basis, attach a description of what is required and a proposed schedule for completion of the work.

   d.) I have provided a compliance schedule.

   Yes [ ] No [ ]

   Describe the compliance schedule of events on a separate sheet. Detail what the proposed work entails and the proposed due dates for each of the tasks involved. The proposed compliance schedule is subject to prior approval by the City.

5. Total Toxic Organics (TTOs): Facilities covered by a TTO pretreatment standard must initially sample for the listed TTOs to help determine compliance. Contact the City's Industrial Source Control Division for a listing of the TTOs applicable to your industrial category. See also the table in Attachment A.

   a.) We presently use or plan to use toxic organics listed in the categorical pretreatment standards.

   Yes [ ] No [ ] If "Yes" then:

   b.) A solvent management plan has been developed and is attached.

   Yes [ ] No [ ]

   If "No," attach a proposed schedule to develop and implement a Solvent Management Plan with due dates for each of the tasks involved. The proposed schedule is subject to prior approval by the City.

   c.) I have provided a proposed schedule to develop and implement a Solvent Management Plan.

   Yes [ ] No [ ]

SECTION IV: SIGNATURES & CERTIFICATIONS

Qualified Professional Certification:

I hereby certify under penalty of law that this information was obtained in accordance with the applicable procedures and requirements as specified in the General Pretreatment Regulations and amendments thereto and the City's sewer use ordinance. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

Brian Pletcher — Name (print)

Project Manager — Title

Signature

8/14/07 — Date

Authorized Representative Statement: {40 CFR 403.6(a)(2)(ii)}

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief is true accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

Myron W. Smith — Name (print)

Area Mgr. RM&R — Title

Myron W. Smith — Signature

8/13/07 — Date

Rev 9/14/98

ATTACHMENT A PRIORITY POLLUTANTS

Priority Pollutant Information

1. Indicate by placing an "X" in the appropriate space by each listed chemical whether it is Suspected to be Absent, Known to be Absent, Suspected to be Present, or Known to be Present in your manufacturing or service activity, or generated as a byproduct.

No.	Pollutant of Concern	Known Absent	Suspected Absent	Suspected Present	Known Present	Annual Usage (lb./yr.)	Loss to Sewer (lb./yr.)
1.	asbestos (fibrous)		X				
2.	cyanide (total)		X				
3.	antimony (total)		X				
4.	arsenic (total)				X		
5.	beryllium (total)		X				
6.	cadmium (total)				X		
7.	chromium (total)				X		
8.	copper (total)				X		
9.	lead (total)				X		
10.	mercury (total)				X		
11.	nickel (total)		X				
12.	selenium (total)				X		
13.	silver (total)				X		
14.	thallium (total)		X				
15.	zinc (total)				X		
16.	acenaphthene				X		
17.	acenaphthylene				X		
18.	acrolein		X				
19	acrylonitrile		X				
20.	aldrin		X				
21.	anthracene				X		
22.	benzene				X		
23.	benzidine		X				
24	benzo(a)anthracene				X		
25.	benzo(a)pyrene				X		
26.	benzo(b)fluoranthene				X		
27.	benzo(g,h,i)perylene				X		
28	benzo(k)fluoranthene				X		
29.	a-BHC(alpha)		X				
30.	b-BHC(beta)		X				
31.	d-BHC(delta)		X				
32.	G-BHC*(gamma)		X				
33.	bis(2-chloroethyl)ether		X				
34.	bis(2-chloroethoxy)methane		X				
35.	bis(2-chloroisopropyl)ether		X				
36.	bis(chloromethyl)ether		X				
37.	bromodichloromethane		X				

38.	bis(2-ethythexyl)phthalate		X				
39.	bromoform		X				
40.	bromomethane		X				
41.	4-bromophenyl phenylether		X				
42.	butylbenzyl phthalate		X				
43.	carbon tetrachloride		X				
44.	chlordane		X				
45.	4-chloro-3-ethylphenol		X				
46.	chlorobenzene		X				
47.	chloroethane		X				
48.	2-chloroethylvinyl ether		X				
49.	chloroform		X				
50.	chloromethane		X				
51.	2-chloronaphthalene		X				
52.	2-chlorophenol		X				
53.	4-chlorophenylphenyl ether		X				
54.	chrysene				X		
55.	4,4'-DDE		X				
56.	4,4'- DDD		X				
57.	4,4'-DDT		X				
58.	dibenzo(a,h)anthracene				X		
59.	dibromochloromethane		X				
60.	1,2-dichlorobenzene		X				
61.	1,3-dichlorobenzene		X				
62.	1,4-dichlorobenzene		X				
63.	3,3-dichlorobenzidine		X				
64.	dichlorodifluoromethane		X				
65.	1,1-dichloroethane		X				
66.	1,2-dichloroethane		X				
67.	1,1-dichloroethene		X				
68.	trans-1,2-dichloroethene		X				
69.	1,4-dichlorophenol		X				
70.	1,2-dichloropropane		X				
71.	(cis&trans)1,3-dichloropropene		X				
72.	dieldrin		X				
73.	diethyl phthalate		X				
74.	2,4-dimethylphenol		X				
75.	dimethyl phthalate		X				
76.	di-n-butyl phthalate		X				
77.	di-n-ocytl phthalate		X				
78.	4,6-dinitro-2-methylphenol		X				
79.	1,4-dinitrophenol		X				
80.	1,4-dinitrotoluene		X				
81.	2,6-dinitrotoluene		X				
82.	1,2-diphenythydrazine		X				
83.	endosulfan t		X				
84.	endosulfan tt		X				
85.	endosulfan sulfate		X				
86.	endrin		X				

87.	endrin aldehyde		X				
88.	ethylbenzene				X		
89.	fluoranthene				X		
90.	fluorene				X		
91.	heptachlor		X				
92.	heptachlor epoxide		X				
93.	hexachlorobenzene		X				
94.	hexachlorobutadiene		X				
95.	hexachlorocyclobentadiene		X				
96.	hexachloroethane		X				
97.	indeno (1,2,3-cd)pyrene				X		
98.	isophorone		X				
99.	methylene chloride		X				
100.	naphthalene				X		
101.	nitrobenzene		X				
102.	2-nitrophenol		X				
103.	4-nitrophenol		X				
104.	n-nitroso-dimethylamine		X				
105.	n-nitroso-dipropylamine		X				
106.	n-nitroso-diphenylamine		X				
107.	PCB-1016		X				
108.	PCB-1221		X				
109.	PCB-1232		X				
110.	PCB-1242		X				
111.	PCB-1248		X				
112.	PCB-1254		X				
113.	PCB-1260		X				
114.	pentachlorophenol		X				
115.	phenyl anthracene				X		
116.	phenol		X				
117.	pyrene				X		
118.	2,3,7,8-tetrachlorodibenzo-p-dioxin		X				
119.	1,1,2,2-tetrachloroethane		X				
120.	tetrachloroethene		X				
121.	toluene				X		
122.	toxaphene		X				
123.	1,2,4-trichlorobenzene		X				
124.	1,1,1-trichloroethane		X				
125.	1,1,2-trichloroethane		X				
126.	trichloroethene		X				
127.	trichlorofluoromethane		X				
128.	2,4,6-trichlorophenol		X				
129.	vinyl chloride		X				

SEE FIGURE 4

ATTACHMENT B PROCESS FLOW DIAGRAM

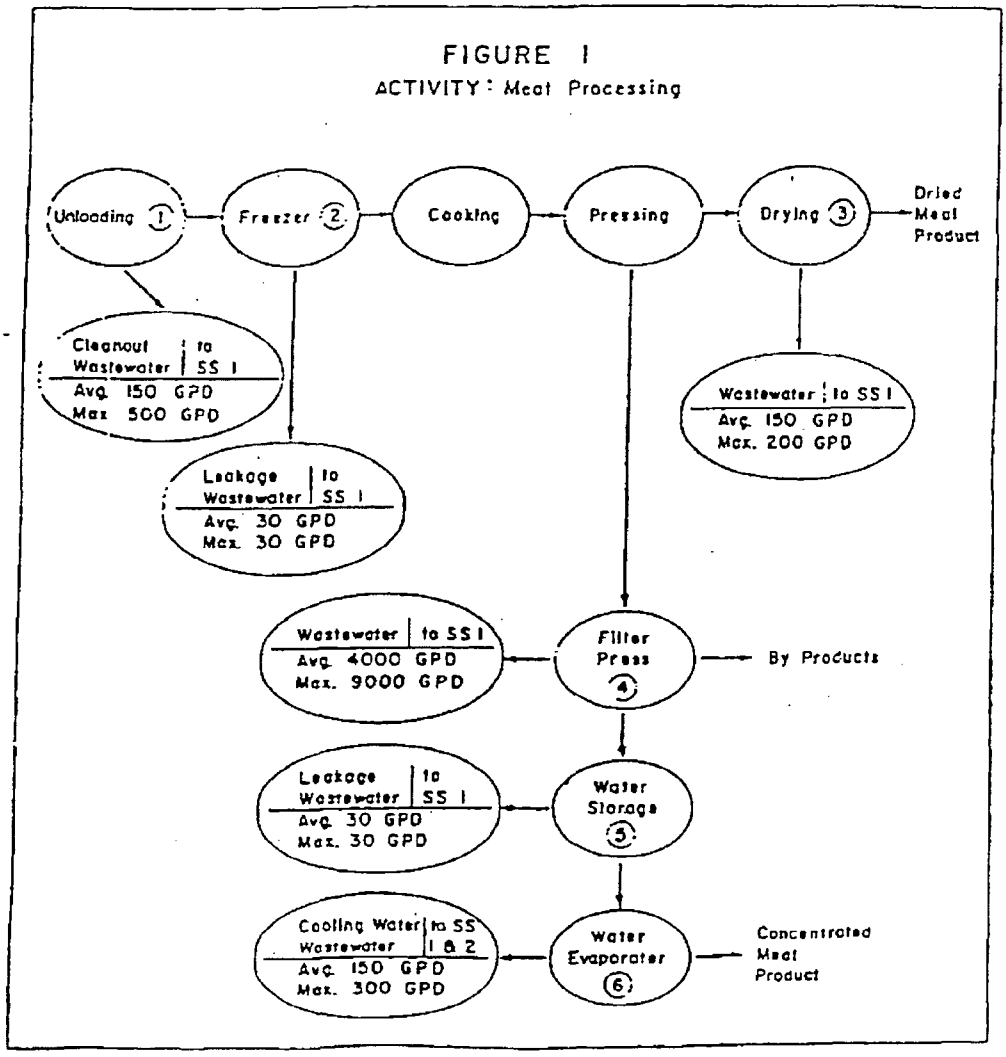
For each major activity in which wastewater is generated, draw a diagram of the flow of materials and water from start to completed activity, showing all unit processes generating wastewater. Number each unit process having wastewater discharges to the community sewer. Use these numbers when showing this unit process in the building layout in schematic. Use the space below or additional sheets of 8x11 paper. An example is provided on the other side of this sheet. Using this example as a guide, diagram the flow of materials and water from the start of each process to the completed product or activity. Show all unit processes generating wastewater. Indicate the process flow rates in gallons per day (gpd) with numbered steps keyed to building locations.

Instructions PROCESS FLOW DIAGRAM

A Separate drawing should be completed for each major business activity.

A line drawing (schematic flow diagram) of each major business activity is to be completed either in the space below or drawn on separate sheet of paper (all sheets should be letter size). Number each process that generates wastewater using the same numbering system as in the building layout or plant site plan shown in the building layout schematic. An example of drawing required is shown below in Figure 1.

To determine your average daily volume and maximum daily volume of wastewater flow, you may have to read water meters, sewer meters, or make estimates of volumes that are not directly measurable.

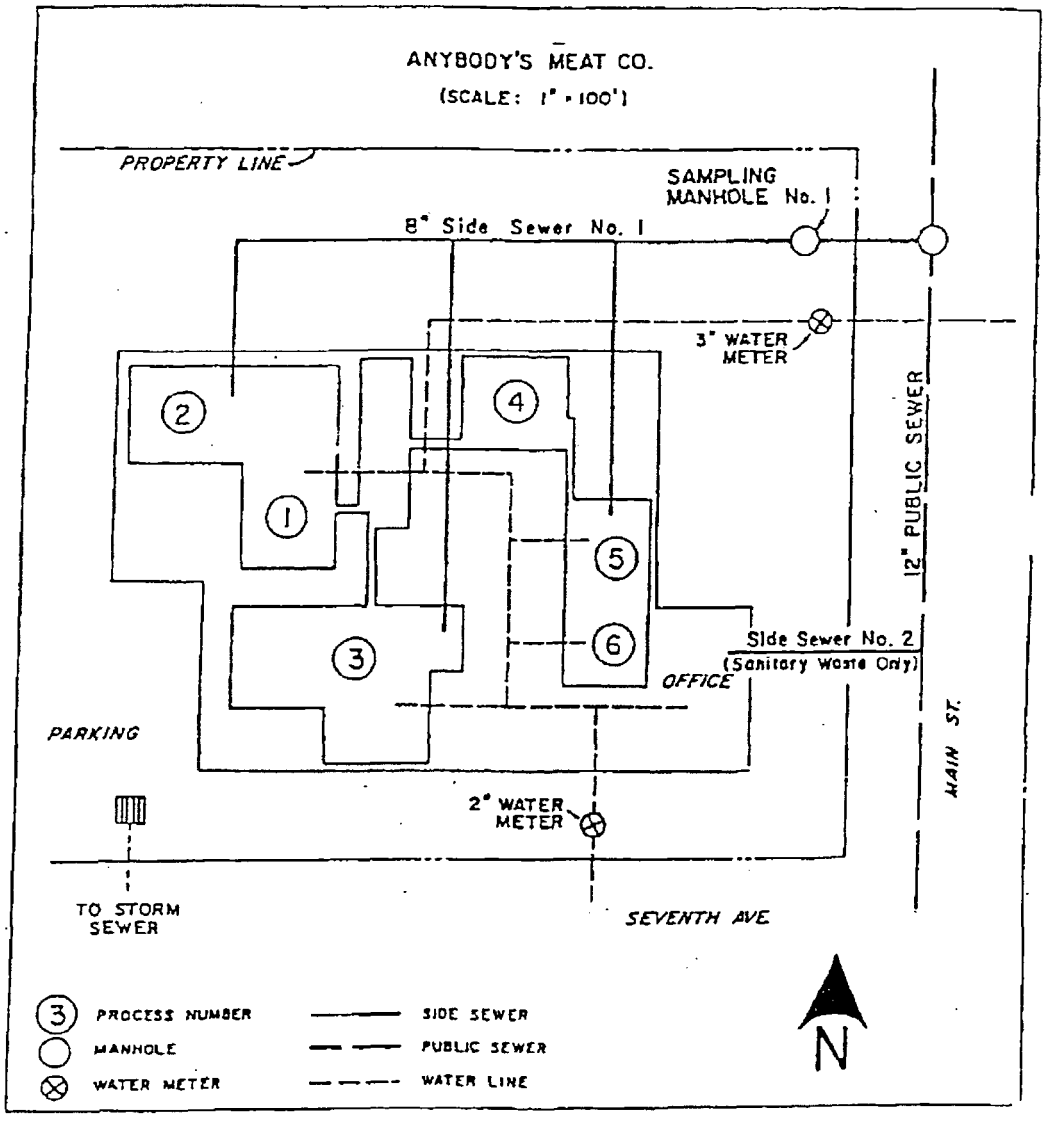


SEE FIGURE 2

ATTACHMENT C BUILDING LAYOUT

Draw the location of each building on the premises. Show location of all current or planned water meters, storm drains, numbered unit processes (from process schematic(s)), community sewers and each side sewer connected to the community sewers, automatic sampling equipment (current or planned), location of pretreatment processes, treated flows and untreated flows, name and location of pertinent streets. Use flow schematic to indicate process and process discharge in gpd. Number each side sewer and show possible sampling locations (sampling manhole).

An attached blueprint or drawing of the facilities showing the above items may be substituted for a drawing on this sheet. Use the example on the back side of this sheet as a guide.



ATTACHMENT D BASELINE MONITORING REPORT FORM

NA
EXISTING
SYSTEM

City of Portland
Industrial Wastewater Discharge
Baseline Monitoring Report

COMPANY NAME: _____ PHONE NO.: (503) _____
FACILITY ADDRESS: _____
PROCESS DESCRIPTION: _____
SAMPLING LOCATION: _____
SIC CODE(S): _____ ESTIMATED FLOW (GPD): _____

Analyze for all parameters indicated under *required sampling*. The sampling and analysis must be representative of normal work cycles and expected pollutant discharges.

Required Sampling	Pollutant	40 CFR 136 Method	Sample Type	Sample Date	Results (or estimates) mg/L or lbs.
	pH		Grab		
	Arsenic		Composite		
	Cadmium		Composite		
	Chromium		Composite		
	Copper		Composite		
	Lead		Composite		
	Mercury		Composite		
	Molybdenum		Composite		
	Nickel		Composite		
	Selenium		Composite		
	Silver		Composite		
	Zinc		Composite		
	Oil & Grease (total)	EPA 1664	Grab		
	Cyanide A		Grab		
	Cyanide T		Grab		
	Volatiles		Grab		
	Semi-volatiles		Grab		
	BETX		Grab		
	Ammonia				
	BOD5				
	TSS				

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to ensure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

SIGNATURE: _____ DATE: _____